Operations Project Authorization Form

Approved at September 19, 2019 EPAC

Link to Meeting Minutes

Date Prepared: September 5, 2019	**Project Title:** [redacted] LTC Controls
Company: Eversource CT	**Project ID Number:** CS00359
Organization: Asset Management	**Class(es) of Plant:** Distribution Substation
Project Initiator: [redacted]	**Project Category:** Stations - Transformers
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Project Purpose:** Support Operation
Estimated in service date: Completed – ISD 12/31/18	**If Transmission Project:** Distribution Project – non-PTF
Eng. /Constr. Resources Budgeted? Yes	**Capital Investment Part of Original Operating Plan?** Yes
Authorization Type: Full Funding	**O&M Expenses Part of the Original Operating Plan?** No
Total Request: $244.7K	

Financial Requirements:

Project Authorization
ERM: _____

FP&A: _____

Executive Summary

This project is seeking full funding of $244.7K to cover the capital replacement cost of the obsolete/failed [redacted]. Annual project DSN62011 was created to address the emergent condition at [redacted] The substantial change was the use of external contractor resources instead of internal resources.

Revised testing and commissioning procedures increased the overall project costs. The final cost of the project is $244.7K. This project is complete and was placed in service December 18, 2018.

Project Costs Summary

Note: Dollar values are in thousands

	Prior Authorized	2016	2017	2018	2019	Totals
Capital Additions - Direct	$69.2	$0.9	$6.9	$199.1	$0.6	$207.5
Less Customer Contribution	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Removals net of Salvage 25%	$7.8	$0.2	$0.8	$19.8	$0.0	$20.8
Total - Direct Spending	$77.0	$1.1	$7.7	$218.9	$0.6	$228.3
Capital Additions - Indirect	$1.6	$0.3	$1.0	$15.1	$0.1	$16.5
Subtotal Request	$78.6	$1.4	$8.7	$234.0	$0.7	$244.8
AFUDC	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Total Capital Request	$78.6	$1.4	$8.6	$234.0	$0.7	$244.8
O&M	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Total Request	**$78.6**	**$1.4**	**$8.7**	**$234.0**	**$0.7**	**$244.8**

The “Prior Authorized” column represents cost of the LTC contact replacement scope approved under the annual work order DSN62011. The total costs shown are those posted in Power Plan as of 6/30/19.

Financial Evaluation

Note: Dollar values are in thousands

Direct Capital Costs	2016	2017	2018	2019	Total
Straight Time Labor	$0.4	$1.0	$12.7	$0.0	**$14.1**
Overtime Labor	$0.0	$0.0	$0.5	$0.0	**$0.5**
Outside Services	$0.6	$6.7	$185.8	$0.6	**$193.7**
Materials	$0.0	$0.0	$19.9	$0.0	**$19.9**
Other, including contingency amounts	$0.1	$0.0	$0.0	$0.0	**$0.1**
Total Direct Costs	**$1.1**	**$7.7**	**$218.9**	**$0.6**	**$228.3**

Indirect Capital Costs	2016	2017	2018	2019	Total
Indirects/Overheads (including benefits)	$0.3	$1.0	$15.1	$0.1	$16.5
Capitalized interest or AFUDC, if any	$0.0	$0.0	$0.0	$0.0	**$0.0**
Total Indirect Costs	**$0.3**	**$1.0**	**$15.1**	**$0.1**	**$16.5**
Total Capital Costs	**$1.4**	**$8.7**	**$234.0**	**$0.7**	**$244.8**
Less Total Customer Contribution	$0.0	$0.0	$0.0	$0.0	$0.0
Total Capital Project Costs	**$1.4**	**$8.7**	**$234.0**	**$0.7**	**$244.8**
Total O&M Project Costs	$0.0	$0.0	$0.0	$0.0	$0.0

Reconciliation of Cost Increase

The annual work order DSQ62011 estimate was estimated at $78.6K. The capital charges shall be transferred from DSQ62011 to the current project.

		Original estimate ($K)		Actuals ($K)		Delta ($K)
Materials		$10.0		$19.9		$9.9
Labor/Services		$67.0		$208.4		$141.4
Indirects		$1.6		$16.5		$14.8
Totals		**$78.6K**		**$244.8K**		**$166.1K**

Future Financial Impacts:

Provide below the estimated future costs that will result from the project: N/A

Note: Dollar values are in thousands

Future Costs	Year 20__	Year 20__	Year 20__	Year 20__+	Total Future Project Costs
Capital	$ -	$ -	$ -	$ -	$ -
O&M	-	-	-	-	-
Other	-	-	-	-	-
TOTAL	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Describe the estimated future Capital, O&M, and/or Other costs noted above: N/A

What functional area(s) will these future costs be funded in? N/A

A representative from the respective functional area is required to be included as a project approver.

If this is other than a Reliability Project, please complete the section below;

Provide below the estimated financial benefits that will result from the project: N/A

Note: Dollar values are in thousands

Future Benefits	Year 20__	Year 20__	Year 20__	Year 20__+	Total Future Project Benefits
Capital	$ -	$ -	$ -	$ -	$ -
O&M	-	-	-	-	-
Other	-	-	-	-	-
TOTAL	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Describe the estimated future Capital, O&M, and/or Other benefits noted above: N/A

What functional area(s) will these benefits be reflected in: N/A

A representative from the respective functional area is required to be included as a project approver.

Asset Retirement Obligation (ARO) and/ or Environmental Cleanup Costs (Environmental Liabilities):

Is there an ARO associated with this project? If yes, please provide details: No

Are there other environmental cleanup costs associated with this project? If yes, please provide details: No

Technical Justification:

Project Need Statement

The annual work order DSN62011 was needed in 2016 to replace the failed [redacted] See the attached [redacted] – Operations Diagram. The [redacted]

[redacted]

[redacted]

Project Objectives

The objective was to replace the [redacted]

Project Scope

The scope included replacement of the [redacted]

The [redacted]

Background / Justification

[redacted]

Business Process and / or Technical Improvements

This project has increased our equipment connectivity to the SCADA system and has allowed for remote status indication and in some cases remote operation and control.

Alternatives Considered with Cost Estimates

There were no alternatives considered prior to the LTC failure as this was an emergent replacement project to restore normal transformer operation.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Project completed	12/31/18 (Actual ISD)

Regulatory Approvals

None

Risks and Risk Mitigation Plans

The project has been completed, there are no outstanding risks to mitigate.

References

None

Attachments (One-Line Diagrams, Images, etc.)

- Work Order (Rev 1)
- [redacted] – Operations Diagram
- PowerPlan Actual Costs

Project Checklist – Transmission and Substation

INSTRUCTIONS:
It is the responsibility of the initiator to contact the area disciplines to determine if the project considerations contained in this list are applicable to their project. They should fill out the checklist and determine a transition plan for the purpose of project execution.

Checklist for Studies and Processes of a Transmission & Substation Capital Project						
Project Name: [redacted]					**PAF No: CS00359**	
Facility Type: ☐ BPS	☐ BES	☐ PTF	☒ non-PTF	☐ CIP	☒ Distribution	
PLANNING						
Is a NX-9 required?					No	
Is an ISO-NE PAC presentation required?					No	
Is a PPA required?					No	
Is a TCA Application Required?					No	
PLANNING/PROTECTION & CONTROLS						
Are RAS/SPS/UVLs affected?					No	
OPERATIONS						
Outage Required?	☒ Primary Equipment (Power Transfer)		☐ Secondary Equipment (P&C only)		☐ Outage Not Required	
Do SCLL Conditions Exist?					No	
Has an outage schedule been approved?					Yes	
Are Operations & Maintenance procedures/training required?					No	
STANDARDS						
Does the project include standard equipment and designs?					Yes	
SUBSTATION ENGINEERING						
Does this impact Revenue Metering					No	
Is preliminary short circuit/ breaker duty analysis required?					No	
Are there any changes to the baseline audible noise?					No	
Is there an impact to the existing ground grid?					No	
Is a Transient Over Voltage (TOV) analysis required?					No	
P&C ENGINEERING						
OP-22 - Are PMUs and DDR required?					No	
If BPS, is an NPCC Directory #4 presentation required?					No	
Are ISO-NE OP-24 Appendix B updates necessary?					No	

Checklist for Studies and Processes of a Transmission & Substation Capital Project	
Project Name: [redacted]	**PAF No: CS00359**
TRANSMISSION LINE ENGINEERING	
Are there any changes that affect the baseline EMF?	No
Are there any changes that affect the baseline EMI?	No
SITING	
Is a Siting filing required?	No
PERMITTING	
Is there any permitting required?	No
SITING & CONSTRUCTION SERVICES (OUTREACH)	
What is the level of outreach expected?	None
INITIATOR	
Has a field constructability review been completed?	Yes
INVESTMENT RECOVERY	
Does the project require development of an Investment Recovery plan?	No
COST ESTIMATING	
How was the cost estimate prepared?	Other (specify below)
Who prepared the estimate?	Actual Costs
Was the estimate reviewed by Eversource Estimating?	No

EVERSOURCE ENERGY SERVICE COMPANY
SUBSTATION PROJECT ASSIGNMENT

TITLE: [redacted]	PROJ./W.O. NO: DSN62011 Rev 1	
SYSTEM PROJECT TITLE: WR 2728797	PROJ. CONSTR. MGR.: [redacted]	DATE ISSUED: ~~5/20/16~~ 6/9/17
OP. CO /DIVISION/ DISTRICT: EVERSOURCE CT-WESTERN-Stamford	PROJECT ENGINEER: [redacted]	

PERSONNEL ASSIGNMENTS:

PROTECTION	DESIGN	CIVIL	METER ENGINEERING
[redacted]	[redacted]	[redacted]	[redacted]

DISTRIBUTION AUTOMATION			REQUESTED BY:
[redacted]			[redacted]

DESCRIPTION OF ENGINEERING WORK INVOLVED:
Furnish necessary engineering and design using a 2016 annual work order to replace the [redacted] In addition to [redacted]

Revision 1 (6/09/16)
Personnel Assignment change/addition:
Project construction manager changed from [redacted] to [redacted];
Civil engineering designer, [redacted], has been added
Scheduled ISD changed: from 11/30/16 to 12/29/17
Added: Drawing dates and P/C PKG to Design date

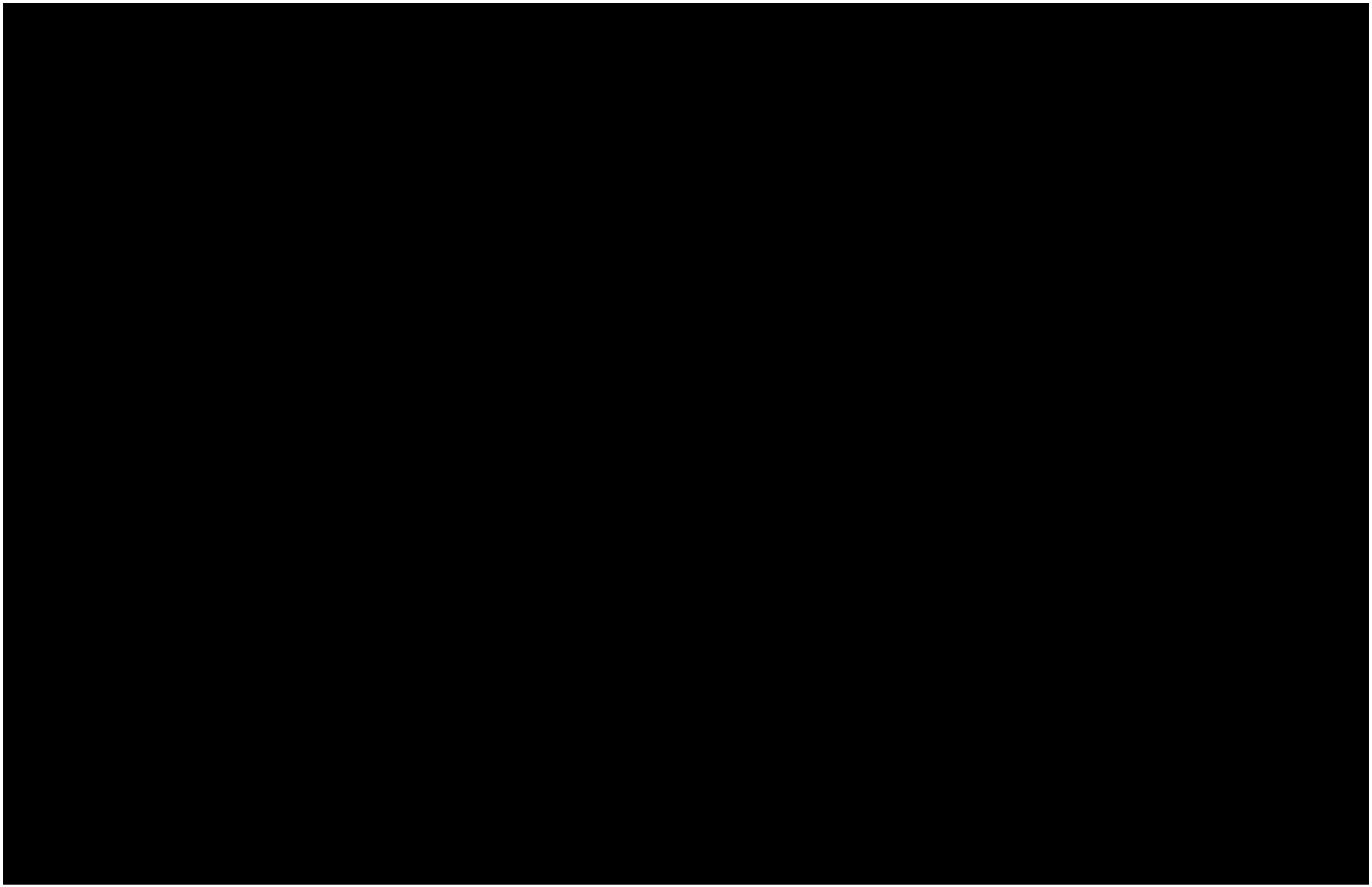
SCHEDULED ISD: ~~11/30/16~~ **12/29/17**
ACTUAL ISD:

CIVIL DRAWING ISSUE: ~~N/A~~ **03/31/17**
P/C PKG to DESIGN: ~~N/A~~ **12/16/16**
PHYS DRAWING ISSUE: ~~N/A~~ **03/31/17**
ELEC DRAWING ISSUE: ~~N/A~~ **03/31/17**

Annual Project Estimate

Activity	$ Estimate
Labor – Electrical Construction	18450.00
Labor – Civil Construction	10000.00
Labor – Electrical Test	12200.00
Labor – Engineering	18500.00
Labor – Removal	7800.00
Material	10000.00
Loaded Project Estimate Total	**76950.00**

South End 1G – Operations Diagram



Cost Breakdown for FP# DSN62011

09/05/2019

				FERC Account #		
Cost_Type	Year	CE_Type	DESCRIPTION	107010	108030	Total
Direct	2016	Contractors	Engineering Design Services	543.35	56.31	599.66
		Contractors Total				599.66
Direct	2016	Labor	Labor Straight Time Exempt	298.85	46.12	344.97
Direct	2016	Labor	Labor Straight Time Non-Exempt	22.00	2.28	24.28
		Labor Total				369.25
Direct	2016	Misc Other	Mileage	66.54	6.90	73.44
		Misc Other Total				73.44
	2016 Total					1,042.35
Direct	2017	Contractors	Engineering Design Services	5,976.95	619.33	6,596.28
		Contractors Total				6,596.28
Direct	2017	Labor	Labor Overtime Non-Exempt	150.41	15.58	165.99
Direct	2017	Labor	Labor Straight Time Non-Exempt	727.77	75.42	803.19
		Labor Total				969.18
	2017 Total					7,565.46
Direct	2018	Contractors	Contractor Labor	145,245.93	15,050.02	160,295.95
Direct	2018	Contractors	Contractor- Unit Price	14,997.60	1,554.02	16,551.62
Direct	2018	Contractors	Engineering Design Services	7,423.77	769.23	8,193.00
Direct	2018	Contractors	Refuse Removal and Recycling	216.56	22.44	239.00
		Contractors Total				185,279.57
Direct	2018	Labor	Labor Overtime Non-Exempt	532.76	55.21	587.97
Direct	2018	Labor	Labor Premium and Special Non-Exempt	6.34	0.66	7.00
Direct	2018	Labor	Labor Straight Time Exempt	6,739.40	698.33	7,437.73
Direct	2018	Labor	Labor Straight Time Non-Exempt	4,075.66	422.30	4,497.96
		Labor Total				12,530.66
Direct	2018	Materials	Materials- Purchased	2,054.66		2,054.66
Direct	2018	Materials	Materials- Stores	17,825.84		17,825.84
		Materials Total				19,880.50
Direct	2018	Misc Other	Employee Expense Other	12.90	1.34	14.24
		Misc Other Total				14.24
	2018 Total					217,704.97
Direct	2019	Contractors	Engineering Design Services	552.73	57.27	610.00
		Contractors Total				610.00
Direct	2019	Labor	Labor Straight Time Exempt	50.90	5.27	56.17
		Labor Total				56.17
	2019 Total					666.17
Direct Total						226,978.95
Indirect	2016	Indirect	Admin and Eng OH- Acct Use Only	17.31	2.22	19.53
Indirect	2016	Indirect	Gen Ser Co Benefit Loader- Acct Use Only	233.40	35.21	268.61
Indirect	2016	Indirect	Non Productive Time Loader- Acct Use Only	55.80	8.42	64.22
Indirect	2016	Indirect	Vehicle Costs Clearing- Acct Use Only	0.23	0.02	0.25
		Indirect Total				352.61
	2016 Total					352.61
Indirect	2017	Indirect	Admin and Eng OH- Acct Use Only	86.25	8.94	95.19
Indirect	2017	Indirect	Gen Ser Co Benefit Loader- Acct Use Only	693.27	71.84	765.11
Indirect	2017	Indirect	Non Productive Time Loader- Acct Use Only	163.07	16.90	179.97
Indirect	2017	Indirect	Vehicle Costs Clearing- Acct Use Only	20.76	2.15	22.91
		Indirect Total				1,063.18
	2017 Total					1,063.18
Indirect	2018	Indirect	Admin and Eng OH- Acct Use Only	1,062.91	98.10	1,161.01
Indirect	2018	Indirect	Gen Ser Co Benefit Loader- Acct Use Only	7,144.13	740.25	7,884.38
Indirect	2018	Indirect	Non Productive Time Loader- Acct Use Only	1,893.27	196.18	2,089.45
Indirect	2018	Indirect	Payroll Benefit Loader- Acct Use Only	1,097.74	113.76	1,211.50
Indirect	2018	Indirect	Stores Loader- Acct Use Only	3,314.19		3,314.19
Indirect	2018	Indirect	Vehicle Costs Clearing- Acct Use Only	549.59	56.97	606.56
		Indirect Total				16,267.09
	2018 Total					16,267.09
Indirect	2019	Indirect	Admin and Eng OH- Acct Use Only	3.54	0.37	3.91
Indirect	2019	Indirect	Gen Ser Co Benefit Loader- Acct Use Only	44.84	4.65	49.49
Indirect	2019	Indirect	Non Productive Time Loader- Acct Use Only	8.95	0.93	9.88
Indirect	2019	Indirect	Vehicle Costs Clearing- Acct Use Only	0.84	0.09	0.93
		Indirect Total				64.21
	2019 Total					64.21
Indirect Total						17,747.09
Grand Total						244,726.04